electronic bulletin board from among said plurality of electronic bulletin boards, accesses the most preferred electronic bulletin board and acquires the restored message of said icon message, and transmits the restored message to said mobile information terminal.

Brief Description of the Drawings

Fig. 1 is a block view of the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 2 is an overall view of the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 3 is a view explaining the procedure of using the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 4 is a view explaining the procedure of accessing the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 5 is a view explaining another procedure of using the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 6 is a view explaining the communication procedure in the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 7 is a flow chart showing the security management procedure of the electronic bulletin board system relating to an embodiment of the present invention;

Fig. 8 is a block view of the bulletin board server relating to an embodiment of the present invention; and

Fig. 9 is a flow chart of the security management procedure of the electronic bulletin board system relating to an embodiment of the present invention.

Description of the Preferred Embodiments

The electronic bulletin board according to an embodiment of the present invention is structured using an icon-driven server/client system for sending and receiving messages in real time. Using this system, a message is addressed intuitively and directly by dragging and dropping an icon.

In the above explanation, an icon is not the message itself but a representation of a message, and contains information for specifying the sender and/or the receiver of the message, e.g., text information, initial, nickname, symbol or other information on the receiver and/or the sender. This information need not be understood by everyone, only at least by the receiver. The simplest icon would be a sign arranged between the receiver and sender. The icon may also contain additional information such as the receiver's name, the sender's name, the transmission time, password information, a portion of the message (headline), and a URL.

This system can be used in a very simple manner. The user merely accesses the server any time to use the electronic bulletin board.

This system is characterized by being easy to install, easy to use, and easy to customize. The system can be installed on a personal computer and also on a cellular phone or other mobile information terminal that can connect to the Internet.

To use this system, the server should be a CGI-supported Web server, and should support Java. The client should be a

Java-supported Web browser, and should support the virtual machine/run-time environment of Java.

This system has the following major functions.

Message creation function

This is a function to create a message to send to a destination. For example, if an icon for sending a message is clicked on, a dialog box is displayed on the screen, and the icon and the message are linked by writing the message in this dialog box. The dialog box may be displayed not only when the icon is clicked on but also when the icon is dragged and dropped.

Message addressing function

This is a function to determine the destination of a message. In conventional electronic mail software, the destination should be input by characters. This function defines and manages an area on the screen corresponding to each client, and judges which area the icon is to be dragged and dropped onto, i.e., judges which destination the message is addressed to.

Security function

This is a function to control access to an icon and/or message. This function grants permission to read, move, correct, or delete an icon and/or message. For example, a message of an icon placed in a public space can be read by anyone, but an icon placed in a private space can be read only by the specified party or parties.

Now, the embodiments of the present invention will be described in detail with reference to the drawings.

Fig. 1 is a functional block view showing the overall structure of a central server 1 and a bulletin board server 2 used in the present system. Central server 1 comprises a message transfer portion 11 for transferring the received message as